PAO This is Skylab Control; 11:09 Greenwich mean time. A minute and a half away from acquisition through the Goldstone tracking station. Actually Goldstone and Texas almost simultaneously. On the Flight Plan today are four ATM exercises. Four ATM runs with the solar astronomy experiments and telescope mount. And one Earth resources experiment package run on track number 6. Sounds like a train departure, anyrate track 6 has to do with ground track covered by the EREP pass. The crew should be awaken during this stateside pass and as much as their workday is based on a 6 a.m. Houston time, to 10 p.m. And this is the first station pass since the 6 a.m. wakeup time. Standing by on air ground for the commencement of air ground communications, CAP COM this morning is Bob Crippen.

CC Good morning, Skylab. We're AOS over the states for the next 15 minutes, for the next 15 minutes.

CC Skylab, Houston. Do we happen to have anybody in the area of the STS panel?

SC Don't be coy, Houston. What do you need?

CC Well, we were - noticed that Paul was going up and shutting down the caution of warning, like his morning checklist but apparently we got a caution and warning sensor, caution and warning 1 on AM 202 turned off - or rather open, and we'd like to verify that it is closed.

SC Which one, Crip?

CC Roger. It's on 202, caution and warning system sensors, caution and warning 1. That should be closed and it looks like it's open.

SC No, sir. Sensors caution warnings are closed. The only ones are as per the housekeeping 70, which is converter 1 and tone amp 1.

CC Roger. I understand you say it is closed and that the tone amp is open.

SC That's right. Do you want me to (garble) for you - see if it changes your status?

CC If it's not too much trouble, we would like a verification of it.

SC Okay. You want me to cycle the off ones on? Or the one you think is off - off, then back on?

CC Negative.

SC Negative what?

CC Do not cycle them.

SC Oh, okay.

SC Is that what you wanted?

CC Suppose so right now.

SC Once I leave, that's it. You're not going to call me back now, are you?

CC We wouldn't do that.

SC Okay.

SL-4 MCC-H/2
Time: 06:09 EDT
6/3/73

SC Where - what station are you talking to us through?

CC We're over the states now. We're just about to go LOS. We're right over - right over Bermuda.

CC Skylab, Houston. We're 1 minute to LOS. We'll see you again over Madrid at 11:32, 1132.

PAO This is Skylab Control. Brief gap in here between the stateside tracking stations and acquisition through Madrid and Canary overlapping. Space station will pass within one degree of directly overhead at the Madrid station. Max elevation, 89 degrees. Right across dia - -

END OF TAPE

PAO Right across diagonally the middle of sunny Spain. The crew's stirring about now in the space station. Didn't respond to the first wake-up call. A minute and 50 seconds to acquisition at Madrid. Skylab Control standing by.

CC Skylab, Houston. We're AOS over Madrid for the next 9 minutes.

SC Roger, Crip.

CC PLT, Houston.

SC He's in the BMMD, Crip.

CC Oh, okay.

SC What do you need?

CC Okay. The - I fibbed to you awhile ago. There is another switch set that we'd like you check up in the STS, but it can be done at your convenience.

SC I'm on my way.

CC Well, okay. It's on 203, AIRLOCK MODULE FANS. We'd like to verify that all three CIRCULATION FANS 1, 2, and 3 are OFF, and that DUCT is in HIGH. It looks like to us that DUCT got turned OFF.

SC Houston, SPT.

CC Go, SPT.

SC You can read the odds and ends, but I don't understand what you're telling us on the star tracker.

CC Sorry about that.

SC (Garble) ATMC using backup OG angle up.

CC What we're saying, Joe, is that we turned off the star tracker last night, so we just wanted to get to your switch in the correct configuration. As a result of the star tracker being off, that the computer is now using the backup outer gimbal angle.

SC Ah, there's a period in there. Okay. Okay, Crip, say it again.

CC Roger. Did you want me to say the switch check again?

SC Yeah, I was just looking for it.

CC Oh, okay. On panel 203, AIRLOCK MODULE FANS. We'd like to verify that the CIRCULATION FANS 1, 2, and 3, are OFF and that the DUCT fan is HIGH.

SC Okay, now we've got that configuration of the fans 1, 2 off, 3 HIGH and DUCT OFF.

CC Okay. We want DUCT FAN to HIGH and the CIRCULATION FANS should be OFF.

SC Okay, the three duct fans are off and the duct high.

CC Thank you, sir.

SC You're welcome.

SC Okay, Houston. SPT once again. How come we changed our mind about M093? Gotten any word on that?

CC No, I don't have any good word on that. I think it was a political thing.

SC Okay, we thought it was a good decision but just wanted to ask. In the S082A door that (garble) I'd like to request that, and it's been done most of the time. When 82A wants it's door open, whether they're going to observe that rev or whether they simply want to be on the alert for a flare. That's the little statement. "82A door open, flare enable" to be put at the top of the - top of the pads.

CC Roger. I believe that's the normal way of doing it, but that will be done.

SC Yeah, well you see, you're note 1 implies that there's a judgment factor on a part of the crew and there really isn't. You look there and if it's there you open it and otherwise you don't?

CC Yeah, Joe, we were aware of that when we sent it up, but I guess we just wanted to emphasize it.

SC Okay.

CC And, SPT, Houston. No requirement for an answer right now, but for your information we didn't receive data on M133 all last night, and the people were wondering if you had any information as to why that might have been so.

SC You caught him in the scale.

CC That's good timing. Has Pete already been there, or can I wait a few minutes and catch him?

SC Well, he's watching Joe and taking his reading. Also, he's holding his breath while he's being weighed; very hard to converse with the guy when he's on the - in the scale.

CC Ah, yes, I'm aware of that. So I just thought it was good that I managed to catch two out of three guys there.

SC Well, we - nobody has apparently remembered seeing it one the Flight Plan yesterday, so the doctor didn't have his little hat on, although he did notice that today's Flight Plan said post 133. He figured you might mention it.

CC Roger. Understand he didn't wear it.

SC Right. I'm glad you didn't get data.

CC Never can tell with some of these electrons.

CC Skylab, Houston. We're about 45 seconds from LOS. We'll see you again at Honeysuckle at 12:19; that's 12, 19. For your information we had requested on the I think on the odds and ends message a repeat of the sound level meter readings and we did a little more research and found them, so that is unnecessary now.

SC That's very nice, Crip, because there is nothing more tedious than standing in a speaker box reading a hundred numbers.

CC I agree.

SC Okay. See you later.

CC Roger.

PAO This is Skylab Control. Loss of signal through the Madrid tracking station with the space station now over the Libyan Desert. And 36 minutes to Honeysuckle Australia tracking station. Crew up and about at this time, preparing for the day's activities. Another rather busy day of medical, astronomical, and Earth resources experiments. At 11:43 Greenwich mean time; 35 minutes to Honeysuckle, Skylab Control.

END OF TAPE

PAO This is Skylab Control 12:16 Greenwich mean time. A minute 30 seconds away from acquisition at the Honeysuckle, Australia tracking station. Standing by on air-to-ground for - Well, the warbler was a little late. There's an alarm warbler that goes off when we're 2 minutes from a tracking station - from acquisition. Standing by for the Honeysuckle Creek Australia pass, this is Skylab Control.

CC Skylab, Houston. We're AOS over Honeysuckle for the next 5 minutes.

SC Rog, Crip.

CC Roger. And I have a couple of pad updates that I'd like to give you if you've got time to copy. One's for the PLT and the other one goes on the ATM schedule pad and the SAP.

SC Okay. Wait'll I put my cornflakes down. Just a second.

SC Go ahead.

CC Rog. I hate to interrupt breakfast. For the PLT. On the bottom of his EREP prep pad, there is a remark that deals with installation of the primary 192 attenuator installation, and we want to delete that.

SC Okay. We got it.

CC Okay. Now, on the ATM schedule pad, on the last part of it under the - it's for the last pass at 5 minutes left in daylight, they have for unattended OPS to point at P, Papa, 62. We want to change that to Sun center and that's also applicable right below it where it says GMT of 7 minutes, 0007. Change that P62 target to Sun center.

SC Got it.

CC Okay. And new information for your SAP. We have an emerging active region, AR 23, located at 24/.5.

SC Okay.

CC Okay. And also the surges at east limb near Sierra 20 may herald new active region.

SC Say the coordinates again.

CC We're just getting surges at the the east limb near S20.

SC Roger.

CC And for the CDR, I'm informed that you now hold the record for more time in space than any other man around, namely Shakey.

SC Holy Christmas! You mean I finally passed Captain Shakey. I can't believe it.

CC I think you've got him beat by a long way before this thing's over.

SC Send him my regards while he's off on his tug boat.

CC (Laughter) Okay. I'll see if that can't be done. And also, CDR, there's something we're contemplating

down here that I'd like you to ponder. We're considering inhibiting TACs. At all times that it's not required, like for maneuvers and so forth. Namely, to preclude any inadvertent malfunction, emptying out what we've got left. I guess we'd kind of like an opinion from you out of that - about that.

SC Ah - -

CC You can think about it for a while - -

SC I presume you want to go to CMGs only at night then, huh?

CC We're talking about you just leaving it that way all the time, except for when you're doing the ZLV maneuver or something like that. But why don't you just think about that for a while and we'll talk about it later.

SC Okay. I guess there's a difference of opinion between your telemetry and us up here as to how much that TACS has been fired. It seems to me that it fires at a reasonable amount of time at night - night passes during the maneuvers that apparently you guys don't seem to think so. And I'm curious as what your normal consumption has been versus what you think it should be. That's number 1 and number 2. I want to think about it in view of the way the rate gyros have been acting all along. I'm not sure that it makes much difference. What do you think?

CC We're just about to go LOS here, and I'll see you again at Goldstone at 12:48, and we can talk about it there.

SC Okay.

PAO This is Skylab Control. We have had loss of signal through the Honeysuckle Creek Australia tracking station. Although we will have brief acquisition at Hawaii in 14 minutes, the next conversation likely will take place over Goldstone, starting the stateside pass in 21 minutes. Skylab today will make its third survey of the surface and atmosphere of the Earth, beginning at 2:22 p.m., central daylight time and lasting for 11 minutes. The pass, which follows groundtrack number 6, begins in the coastal waters of the Pacific near Eureka, California about 200 miles north of San Francisco, crosses Nevada and Arizona, cuts through the heart of Mexico and ends in the Pacific just south of Guatemala. Weather conditions over the United States are expected to be excellent with about 0 to 3/10 percent cloud cover for the 4,000-mile-long pass, which will include up to 32 areas to be scanned by photographic and other remote sensing equipment. In addition to the Skylab Earth Resources Experiment Package, known by the acronym, EREP, scientists on the ground will be recording data, and three specially equipped NASA research aircraft will fly over several sites in the western United States. The aircraft, a B-57, P-3A, and a C-130, all from Johnson Space Center in Houston, will take off from Edwards and Nellis Air Force Bases, and Alameda airfield on the west coast.

Today's investigations include a substantial number of basic geological studies, many of them designed to establish methods for identifying geological formations using the data returned from the Skylab first manned mission. Dr. Mead Leroy Jenson of the University of Utah in Salt Lake City will use data expected to be acquired today to relate fracture patterns, vegetation, and rock coloration to known mineral deposits. This research may eventually lead to rapid identification of substantial mineral deposits using the data provided by sensors in space that can survey the entire globe. Mr. Carlos Castillo of the Instituto Mexicana del Petroleo expects to use data acquired near Chihuahua, Mexico in the search for hydrocarbons, namely coal, oil, and diamonds. Other geological projects will map major geological structures, drainage basins, crustal features, and fault zones in Nevada and the surrounding areas. In northwest Arizona, assisted by the data acquired by sensors aboard NASA's C-130, Dr. Alexander F. H. Goetz of the Jet Propulsion Laboratory in Pasadena, California will atempt to map ancient, abandoned drainage systems using EREP information. Agriculture and forestry investigations will also be included in the EREP pass today. Robin I. Welch of the Earth Satellite Corporation of Berkeley, California will use Skylab and WB-57 data to demonstrate the classification and mapping of natural resources, specifically rice and range land, on a global basis. Welch's colleague, Philip G. Langely, will use both Skylab and WB-57 information to design an automatic pattern recognition system to perform forest inventories over large areas. Langley's site includes the heavily forested areas of northern California. The latest weather forecasts show that the southern Mexico agricultural site may be lost because of heavy cloud cover in Mexico. Another agricultural research project with substantial importance for the development of remote areas over the globe will be carried out by Dr. Nicolas Sanchez Duran of the Direccion General de Agricultura in Mexico. His project, using data from southern Mexico near the end of the EREP pass, will locate areas of erosion and improper land use and identify locations suitable for land and forest reclamation projects. But, as mentioned earlier, this portion of the pass may be lost because of the heavy cloud cover. A major pollution study, covering areas of California not monitored by ground stations, will be conducted by A. Earl Davis of the state of California's Earth Resources Agency. The project, concentrating on the Feather River area, is part of a wide-ranging study of water resources, wildlife, and the environmental impact of man in California. Urban growth since the 1970 census will be recorded by EREP sensors over Phoenix and Tucson, two of more than a dozen American cities to receive such attention during the 5 months of planned Skylab activities. In addition to these,

a number of water management studies, including the mapping of the Feather River watershed, the detection of gully erosion in southcentral Arizona, and the recording of snow cover in the Sierra Nevada mountains, will be on the list of scientific studies to be provided data during the earth resources overflight this afternoon. All of these are essential elements in predicting and controlling floods and developing effective methods for managing land use and irrigation in the coming years. Should excellent weather conditions hold over the sites selected along today's groundtrack, an excellent return of data is expected from this third pass. Plans for additional passes during the coming weeks are now being detailed by scientists from several government agencies working at the Johnson Space Center. More than 150 principal investigators are participating in the EREP studies. Tropical storm, Ava, is some 225 miles south of the end point of today's EREP run but will not likely be recorded during this particular pass. Golds one acquisition in 14 minutes. At 12:33 Greenwich mean time, Skylab Control.

END OF TAPE

CC Skylab, Houston. We're AOS over Hawaii for about the next 14 minutes. Sorry about that, I gave you a wrong call on our next pass.

SC Roger.

CC And the correc - We can't keep our numbering systems going around here. That new active region I told you about while ago number is 24 vise 23.

SC Hey, Crip; CDR.

CC Go CDR.

SC We've talked it over up here and why don't you go ahead and implement your TACS deally. And we'd like to see everybody concerned there that we considered pros and cons and I don't see anything wrong with it.

CC Okay. I think we'll be typing you up a message to send up either later today or tonight to implement that. And regarding your concern over the number of TACS firing, I guess that there is a feeling here that you're hearing things that aren't really TACS, in some instances, and I guess that the next time you hear something fire, we'd appreciate maybe if you'd give us a call so we can check it with our telemetry.

SC Okay, it's pretty nearly always during the night passes. And I have not displayed the possibility of it being some (garble) phenomena as the vehicle cools down at night, but both of us agreed that it - We get - oh, two to four firings - legal firings relatively - two of them relatively close together to each other normally about the maneuver times during the momentum dump, but that could be not true also. You're - you're showing none, is that right?

CC That's affirm.

SC Kind of interesting, because something is making a pretty good noise out here in the evenings that very much resembles the real TACS firing because there has been occasions where we've been at the window and the TACS has fired and you could see the TACS fire. It sends out a nice big white cloud.

CC Rog. Hope it isn't somebody knocking wanting to get in.

SC Well, I'm sure the docking movies as we came up to the vehicle - It was doing a lot of TACS firing and I'm sure you'll be able to see that very clearly what it looks like. I'm kind of surprised. The Agena never gave out anything that you could see. So I was quite surprised - It was a cold gas system - and I was quite surprised to see the TACS could - was visible when it fires, but it is.

CC Rog. That was obvious to us on the TV when you came in for the docking.

SC Oh, you could see it on TV, huh?

CC That's affirm.

CC We're about 1 minute until LOS and this next pass will be the Goldstone one at 12:48.

SC Oh, let me ask you another question. Not last night, but the night before last about - Oh 04 or 05:00 in the morning sometime, we had a decided change in frequency in one of the pumps and it took us a while to sort it out because it woke both Joe and I up. And we went on a little search party around the vehicle and we wound up concluding that it was in the refrigeration package. And my question is, did you guys switch a pump the day before yesterday in the evening or have we switched any pumps in that package or ' ve you heard anything different?

CC Stand by. Pete, I'm told that we have not seen anything different. And I guess we really can't correlate anything to that particular time. We can have them go back and take a look at it. Understand it was like 04:00 to 05:00 yesterday.

SC Yes.

CC Okay. I guess I also lied to you about my LOS. We've still got it going here for a while.

SC Okay. It's no big deal, but we forgot to report it to you. I'd like on it to the change of pitch of the kind of noise we used to get from the glycol pump in the LM, except that was oscillatory. This switch just flat changed frequency and stayed at di e frequency and now we don't notice it anymore.

CC Rog.

PAO This is Skylab - -

END OF TAPE

SL-2I MC-460/1
Time: 07:46 CDT
6/3/73

PAO This is Skylab Control, apparently we have had loss of signal through Hawaii. At loss of signal back at Honeysuckle Creek. CAP COM Bob Crippen said that he would not call the crew at Hawaii, but wait until Goldstone. But he called them anyhow. We're staying up for the brief gap across from Hawaii to Goldstone. Goldstone in less than a minute, at 12:46 Greenwich mean time. Standing by, Skylab Control.

CC Skylab, Houston. We're AOS over the states for the next 7 minutes.

SC Okay.

CC Skylab, Houston. We're 1 minute until LOS. We'll lose you for a little while and pick you up again over Bermuda at 13:00, 1300.

SC Roger.

PAO This is Skylab Control. Brief gap here in communications, as the space station crosses the northern portion of the country around the Great Lakes region. A gap between Goldstone, Texas, coverage before we come into the Bermuda tracking range. We're estimating a change of shift press conference at 8:45 CDT with flight director Milt Windler. 8:45 a.m. central daylight time flight director Milt Windler in the Houston News Center briefing room. Standing by for resumption of this stateside pass. At 12:56 Greenwich mean time, Skylab Control.

END OF TAPE

SL-II-SC461/1
Time: 07157 CDT
6/3/73

CC Skylab, Houston. We're AOS over Bermuda for the next 5 minutes - for the next 6 minutes.

SC Houston, got a question about the computer filter dope you sent up. I can't really make it work out. If I put the - Wait - If I put the ascending node where you say, which as I remember was 135.7, at the time you said, which was an hour and 15 minutes ago, then we ain't suppose to be over the U.S. now.

CC Okay. I'll get somebody to look at that for you, Paul. I don't have that map with me.

SC Okay.

SC If we can - -

SC At this point I'm not sure of anything if you come back and tell me how to do it - do it right.

CC Okay. Stand by 1.

CC Skylab, Houston. We'll be LOS in about 30 seconds. We'll have you again over Canaries at 13:10, and at that time we will be doing a recorder dump. And also, Paul, we'll try to have an answer for you on your ascending node time and get that straightened out for your map.

SC Okay.

PAO This is Skylab Control, another brief gap here between Bermuda and Canary Island and Madrid coverage. At the start of revolution number 287, ground orbital measurements for Skylab space station: perigee 232.4 nautical miles, by 240.9 at apogee. Orbital period 1 hour 33 minutes 9 seconds. In the electrical power area, the ATM batteries state of charge stands at 71.5 percent of capacity. Internal ambient temperatures in the workshop are now in the 77 to 78 degree range. That gradually coming down. And it appears that the change of shift press conference with flight director, Milton Windler, may be delayed somewhat in as much as after he completes the morning management meeting, he is holding over some of his maroon team for review of tomorrow's Flight Plan before he breaks shift, even though he has handed over to the daytime ex - so called execution shift flight director, Don Puddy. Should have acquisition momentarily through Canary and Madrid; 13:09 Greenwich mean time, Skylab Control.

END OF TAPE

CC Skylab, Houston. AOS for 8 minutes.
SC Hello.
SC Well, Good Morning, Bill.
CC How are you?
SC Terrible! I rode the stinking like before breakfast.
CC I though I heard something grinding in the backgroumd. It's good for you.
SC Not when it's me that's grinding.
CC PLT, Houston.
SC Go ahead.
CC Got some corrections on those nodes on rev 286.
SC Go ahead, Houston.
CC Okay, some corrections on the nodes at rev 286. At 12:38 - -
SC Hold it a minute, Bill - hold it.
CC Okay.
SC My friends are busy, and I just soaped up. Let me finish drying and I'll be with you in half a minute.
CC Copy.
SC Okay, go ahead.
CC AT 12:38:31, it is 154.7 west. At 14:11:41, it is 178.3 west. And the 18:51 is correct. The figure at 18:51 is correct.
SC Okay, thank you. Say, we've really used this slider. I just can't say how glad we are to have this thing along.
CC Copy.
CC Skylab, LOS in 1 minute. Honeysuckle 13:54; and PLT, if you would put the momentum inhibit in at 13:35 for the S183 experiment.
SC Roger.
PAO This is Skylab Control; 13:20 Greenwich mean time. 34 minutes to Honeysuckle as the Skylab space station went over the hill from Madrid and Canary Island coverage. Now crossing northwest Africa. To repeat again, it appears that the change of shift briefing with Flight Director, Milt Windler, will be at or after 9 a.m. central daylight time. Inasmuch as after he comes out of the morning management meeting, he still has to review with his team, tomorrow's Flight Plan, before turning over the initial or preliminary Flight Plan to the incoming team. At 13:21, back again in 33 minutes for Honeysuckle Creek, Australia. This is Skylab Control.

END OF TAPE

[redacted]

PAO — This is Skylab Control; 13:53 Greenwich mean time. Less than a minute away from acquisition through the Honeysuckle Creek tracking station in Australia. Almost directly over this station this pass. Total time of 9 minutes 18 seconds. Standing by for Honeysuckle.

CC — Skylab, Houston. AOS for 10 minutes.

SC — Roger, Houston.

SC — (Music)

SC — Little church call for you, Houston.

CC — What happened, somebody let Joe slip a bugle aboard?

SC — We run everything in top military fashion on this ship.

CC — Copy.

CC — Skylab, LOS in 1 minute. Hawaii at 14:14.

SC — Roger.

PAO — This is Skylab Control. LOS Honeysuckle Creek. Skylab space station next tracking will be over the Hawaii site, there again almost directly over the station. Almost 10 minutes total pass time, and we're about 9 minutes away from acquisition at Hawaii. Flight director, Milt Windler is still scurring around the building trying to nail down the preliminary Flight Plan for tomorrow. And he has no specific estimate as to when he will arrive at Building 1 for the change of shift press conference. His estimate consisted of, it'll be a while yet. At 14:05 Greenwich mean time, 9 minutes to Hawaii, this is Skylab Control.

END OF TAPE

PAO This is Skylab Control; 14:13 Greenwich mean time. About 50 seconds from acquisition at Hawaii. We'll stay up during the brief gap between Hawaii and Goldstone and the subsequent stateside pass at the end of revolution 287 and start of 288. Standing by, Skylab Control.

CC Skylab, Houston. AOS, 10 minutes.

SC Hi there, 10 minutes. The results of the CO test show, as near as I can ' :erpret - interpolate color chart, 10 to 15 parts per million.

CC Copy, 15 parts per million.

SC 10 to 15.

CC Copy, 10 to 15.

CC SPT, Houston.

SC Go ahead.

CC We would like for you to look out for S009 opening one more time. The approximate time is 14:22:08.

SC God bless you. Hey, what's the leak rate of the cluster, Houston? Have you guys had a - time to get a hack on it, in pounds per day? I'm curious whether it's below spec or what?

CC We're checking on that, Joe, and we'll get back with you.

SC I guess all you can give us, Houston, is total usage and if that looks normal or not, because Joe - they don't really know how may times we used the trash airlock, Pete just pointed out.

CC Okay.

SC Houston, SPT.

CC Go, SPT.

SC I'd like to make a recommendation regarding the south Atlantic anomaly and now we have the horns. As a reason or requirement for turning off the S056 high voltages? What this is boiling down to, it looks like is two or three times per pass, you may see something in there, turn if off, turn it on. As you know, we missed it in the pass. And I like to make the following recommendation that on the ground based on the amount of radiation expected and the expected degradation of the high voltage detectors, that the - You people make a determination whether or not the high voltages ought to be on for that stateside pass. And put it at the top of the pass, much as you put the 82A doors and so on. We have added to our powerdown operate/fix pass in our sunside prep checklist, the words high voltage, beryllium, and aluminum - off, at the end of the day and on at the beginning of the day, which will take care of any passes that occur during the night hours. In other words, we will repeatedly power those things down and suck that it and will power them up again at sunrise, if the ground recommends. Now, if we have something powered up and we get

a flare alarm, I think we've learned our lesson on that, I really do. We will look to see if we're in the anomaly before we take action. Over.

CC We copy that, Joe, and we'll have a look at it.

SC Thank you.

CC Skylab, Houston. So far as we can tell, the gas leakage is not detectable by the mass studies that are being done here.

SC Okay, thank you. Well, what it was, we were discussing how carbon monoxide, you know, how we get rid of it. We decided it was esentially a function of the leak rate, and as long as the leak rate was low, we were going to have some.

CC That sounds resonable. And the leak rate is apparently very low.

SC Rog.

SC This is the CDR.

CC Go, CDR. We're standing by, CDR.

SC Roger. I was taking care of squeaky SIA there. S183 star field 252, I think it was, 301, this pad's completed on time.

CC Copy. And, Pete, when you have the time we'd like for you to bring up the star tracker.

SC Okay.

SC Okay. Okay, it will be a few minutes, Houston. I'm just getting starting on this pad.

SC All right, Houston, CDR. Go ahead and give me the star tracker pad and I will - I understand. We have the pad. I'll bring it up for you.

SC You've got the pad.

CC CDR, Houston.

SC Did you just figure out the same thing I just did? It's not available.

CC CDR, could you tell us if the film was returning to the carrousel in the 183?

SC If the film was what?

CC Was returning to the carrousel. There is supposed to be an audible click when it does. There is some indications down here.

SC Oh, it's doing its thing just fine. As a matter of fact, now that you mentioned it, I forgot to turn on the tape recorder 1.

SC (Garble)

SC But it's doing its thing okay.

CC Copy.

SC I show on this star tracker pad, that the stars available for day 33 to day 55, and data for day 52, 56. Why, we won't have the stars until 33.

CC Copy.

[illegible]

CC — CDR, we think the ater tracker pad is [illegible] valid and we're going LOS in about a minute. We'll see you at Goldstone at 14:25.

SC — Okay.

PAO — This is Skylab Control at 14:24 Greenwich mean time. Change of Shift Press Conference should begin at about 9:30, for all news persons in the Houston area. The Johnson Space Center News Room, with Flight Director, Milt Windler, now enroute to the News Center from the Control Center. We'll record on tape the upcoming stateside pass for playback at the conclusion of the press conference. At 14:25, Skylab Control, out.

END OF TAPE

SL-II MCC-5/1
Time: 10:05 CDT
6/3/73

FAO This is Skylab Control, 15:06 Greenwich mean time. Skylab space station now in revolution 288, off the southwestern tip of the African continent. Just had loss of signal through Ascension Island station. Next station coming up in 21 minutes will be Carnarvon, Australia. We have a total of 13 minutes accumulated recorded playback of the stateside and Canary Island, Ascension passes, which we'll play back at this time. Skylab Control at 15:07.

CC Skylab, Houston. AOS Goldstone for 9 minute

SC Roger, Houston.

SC Houston, I got some data on the coronagraph I'd like for you to copy.

CC Go ahead, Joe.

SC Okay, trying to visually center the occultin disk in the TV display, I aprox - and these - these numbers are approximate. NOUN 63, and left 75, appears to center the disk, (garble) satisfactorily.

CC We copy.

SC And Houston, the figures I gave you were fine sunsets or wedge angles. Let me now give you the crosspoint or readings. Over.

CC Go ahead.

SC With the scale in times 10, the vertical crosspointer is right, 75; the horizontal crosspointer is up 13.

CC Copy.

CC SPT, we're standing by for your TV.

SC Okay.

SC Are you getting this live, Houston?

CC That's affirm.

SC Okay, I still have the coronagraph on the monitor and I'll leave it there for a minute.

CC Copy.

SC You can see contamination balls crossing the field of view.

CC Copy.

SC Either that, or I've discovered a new planet. That's H-Alpha 1.

CC And Skylab, we're about to perform a nav upda

SC Roger.

SC And Houston, turn the XUV monitor.

CC Go ahead.

CC Skylab, LOS in 1 minute. Bermuda at 14:37.

SC Roger, Houston. What answer I guess we're going to need eventually is whether the SOS2 PJ wants us to tweak up the coronagraph manually before we use it? Or do we continue to center the needles as we have in past.

CC Try to get you an answer Joe.

CC Skylab, Houston, AOS for 9 minutes.
SC Houston, SPT.
CC Go, SPT.
SC Okay, having a little problem right now determining whether S072 is operating or not. Of course, we have - you know, no door talkback and no ready light, no operate light and I don't see the frames remaining counter decreasing. Ask your guys could check on it, if they have any telemetry on it. And secondly, I wonder whether we are going to leave the doors the way they are forever, or are the PI people still talking that one over?
CC Joe, it's not centere and the out-of-limit discriminator is inhibiting, so it is not operating. And the door's question is being worked at this time.
SC Okay. I guess that answersmy previous question that we cannot operate this thing with the disk manually centered, can we?
SC Because the discriminator won't let it.
CC That's affirmative and proceed on operations as you have in the past on that, Joe.
SC Okay.
CC Joe there is some question on the procedure that's being worked up here and we'd appreciate your comment and the procedure that's being considered is placed in the EVA alternate door switch and INHIBIT and then operating the doors manually except for 52 - Correction 54 - 54.
SC EVA auto door to INHIBIT and doors manually except for 54 which would remain open all the time. I think that's right.
CC That's affirm.
CC Any comment you have would be appreciated.
SC Let me think that one over for a minute, Bill.
CC Okay. Joe, your query on manually tweaking the coronagraph disk, they simply they want you to operate as you have in the past on that one.
SC Aye, aye.
CC Skylab LOS in 1 minute; AOS Canary 14:47.
SC Roger.
SC Hey, Houston, the PLT. I just tried to - maybe plate 8 did not retract into the carrousel on 183. I'm just trying to advance it. It will not advance.
CC Copy.
SC I'll be standing by for some good words next AOS. When was that?
CC Two minutes.
SC Okay.
CC Still octarching.

SC I figured that.
CC Skylab, Houston; AOS for 17 minutes.
SC Roger.
SC Houston, CDR.
CC Go CDR.
SC The M009 package isn't supposed to do anything when it's in reset, right? Other than be closed?
CC Stand by half. CDR, the word here is that M009 is open when you go to reset. It will close.
SC Well, Houston, that's the second time that thing's done that to me. It was in reset, close, and I turned the power off and turned it back on 5 minutes before initiate and my little buzzer went off. And I went up there to initiate it and just as I was waiting for the time to time out, the package opened all by itself to the switch configuration power on and initiate reset switch had reset. So it's running by itself. It's got a mind of its own.
CC Copy.
SC If anybody wants to research that, Bill, I believe that the trainer had exhibited that tendency in the past also.
CC Copy.
CC SPT, Houston.
SC Go ahead.
CC You should be able to astar - to acquire Acamar with the pad that you have onboard at this time.
SC Okay.
SC Hello, Houston, PLT.
CC Go, PLT.
SC A completely new and different and unrelated item, Bill. These fan screens are picking up quite a bit of trash and dirt. I guess we'd like to schedule that fan cleaning, housekeeping operation next time you can fit it in and I think we're going to have to do that about every 3 days.
CC Copy.
CC PLT, that is scheduled - Housekeeping is scheduled for tomorrow at 14:35.
SC Go - go ahead, Houston.
SC Hey, Houston, you there?
CC Go ahead.
SC Did you call the PLT?
CC The squeal cut you out. Say again.
SC Did you call the PLT?
CC Yes, PLT. Housekeeping is scheduled for tomorrow.
SC Okay, good. And as I say, we'll need it about every 3 days, I think, Bill.
CC We copy that.

SL-II MC463/4
Time: 10:05 CDT
6/3/73

SC Houston, SPT. Did you power down the star tracker by DCS?

CC Stand by. That's affirmative. That was accomplished last evening.

SC Ho Ho. So I've got to give it a star track align 30 136. Is that right?

CC You should only have to hit the power switch, Joe.

SC Okay, I may have to (garble).

SC Okay.

SC Houston, you there?

CC Go ahead, Skylab.

SC I'm wondering if maybe I turned the power off prematurely prior to the sequence finishing after going to standby on the S183 on the last pass. I've been sitting here smoking over the malf procedures. Would it hurt to turn the power back on? Of course it is looking at the back of the airlock door right now - It's pitch black in there and set up a shread exposure and let it cycle on frame 08 to see if it completes the cycle.

CC Pete, what we'd like for you to do is to turn the power on - go to STANDBY and then cycle the power to see if that does it.

SC Need cycle STANDBY to - start and then back to STANDBY?

CC That's affirm, Pete.

SC It's a quick cycle.

CC Pete, at this time we want you to bring the power off and then back on, leaving it in STANDBY.

CC That's the sequence switch in STANDBY.

SC Okay, I need - did your other thing if something happens.

SC Houston, CDR.

CC Go, CDR.

SC What's the block 7 on page 7-5? Should - We should give that a whirl?

CC Stand by half, Pete. They're trying to come up with one.

CC Pete, go ahead on step 7, on your malf procedure. That's block 7 - block 7.

SC Roger.

CC Pete, if you don't get this fixed, we want you to enable momentum. We're about to go LOS here.

SC Okay.

CC And if you cancel on this experiment, go ahead and clean any screens that need it and we'll adjust tomorrow's Flight Plan accordingly. We're going LOS in 1 minute. We'll see you in Carnarvon at 15:29.

SL-II MC465/5
Time: 10:05 CDT
6/3/73

SC Roger, Houston. If we cancel, we'll enable momentum.

CC Roger.

PAO This is Skylab Control. That concludes playback of the stateside pass and Canary Island and Ascension Island passes recorded during the Change of Shift Press Conference. Nine minutes to Carnarvon, and Honeysuckle, Australia, stations. During the recorded conversation, Skylab commander, Pete Conrad, went over some troubleshooting with the S183 experiment which is the ultraviolet panorama camera. The science pilot, Joe Kerwin, at this time is involved in solar astronomy experiments in the Apollo telescope mount. And pilot, Paul Weitz, should be doing some housekeeping chores around the space station at this time. Later today, starting at 2:22 p.m. central daylight time, there is an 11-minute Earth resources experiment package, or EREP pass, beginning in the coastal waters of the Pacific about 200 miles north of San Francisco, crossing Nevada and Arizona, extending on down into Mexico, and ending as the ground track crosses into the Pacific Ocean again, just south of Guatemala. This is ground track number 6 and will be the third EREP pass in the mission. At 15:22 Greenwich mean time; 7 minutes to acquisition at Carnarvon and Honeysuckle Creek stations in Australia. This is Skylab Control.

END OF TAPE

SL-II MC-466/1
Time: 10:27 CDT
6/3/73

SC Houston, be advised 8193 - that malf procedure step 7 did not work, so we enabled momentum dump, and we're standing by.

CC We copy that, Pete.

SC (garble)

CC Copy.

PAO Skylab Control. Early acquisition at Carnarvon following through to Honeysuckle Creek. We'll leave the line up for a brief Guam pass.

CC SPT, Houston.

SC Yes, sir.

CC We have a note for you to the ops for S54 - S054 door failure.

SC Okay.

CC One: place the EVA AUTO door switch to INHIBIT and operate all doors manually, except S054. Second step: tape over the S054 door switch, avoid DAS close commands for the S054 door. That command is for 01:42. Third step: enable motor power for S054, S052. DAS command on that is 4 two balls 55.

CC SPT, Houston. We have another note for you.

CC SPT, Houston.

SC Hello, again, Bill. 15:35:10 S009 went to OPEN.

CC Copy.

SC Whatever S009 is.

SC Okay, and you were cut out just as you were about to tell me the command it was that I'm never supposed to use, so you can skip that and tell me anymore you got.

CC Did you get to the third step: enable motor power for S054/S052?

SC No, you didn't. And I expect we are to enable the primary motor. Is that correct?

CC And the DAS number for that one is 4 double balls 55. That's 4 double balls 55. And we're going LOS here. We'll see you at Guam at 15:43.

PAO This is Skylab Control. A 5-minute gap here between Honeysuckle Creek and a very brief Guam pass, slightly over 2 minutes. Space station just barely over the horizon from above the horizon from Guam. We'll leave the circuit up for Guam and Hawaii. At 15:39, Skylab Control.

END OF TAPE

CC Skylab, Houston. AOS, 3 minutes. Skylab, Houston. AOS for 3 minutes.

SC Houston, SPT.

CC Go, SPT.

SC Okay. I think I got your whole procedure. Let me question what affect, if any, this is going to have on the fine sun sensor door? I think I remember correctly that that door will open and close on its own provided we're in EXPERIMENT POINTING. Is that right?

CC Joe, to prevent contamination, we want that door manually cycled, and you are going to have to manually cycle that door.

SC Is that right? I didn't think that door was through the ENABLE switch? Our schematic doesn't seem to show it that way.

SC Yeah, I double checked that, Bill, because we don't understand it to be this way.

CC Yeah, there's a question. Stand by half. The concensus here, Joe, is that it's on - the switch is common to that fine sun sensor door, so that it will be disabled when you flip the switch.

SC That's not right.

SC That would mean that we would be in EXPERIMENTS POINTING with the fine sun sensor off, and that's not very good medicine.

CC Okay.

SC The concensus up here says that we already have a data point from last night that's not right that there's nine doors that go through that, and the fine sensor is separate from signal.

CC We copy, Pete. Joe.

SC What's the story? Do you want us to go to INHIBIT. Is it different in INHIBIT?

SC That being the case, we'd be better off in storage, if there's a difference between storage and inhibit.

CC There - There is a difference in the doors, fine sun sensor doors and storage and in inhibit, Pete.

SC Then why don't we use storage. That way it protects the fine sun sensor and everybody's happy.

CC If we go to storage, it will close the S4 door when we enable S052 power.

SC Okay. I'm beginning to see what you're saying.

CC And, SPT, if you still copy, I have an answer have on your quest about the horns in SA8.

SC Go ahead.

CC They want you to leave the S056 high voltage on all day, so that they can look at scheduling for it.

SC Okay. All day today we'll leave it on, and I'll bring it on again right now.

CC Okay. Now the tone and light on the flare alarm has been tripping, and so we want you to continue to disable that per pad.

SC Okay. Well, we'll work that up here. We'll probably disable it at night.

CC Copy, Joe.

SC And on this other one, I'm still not - you know, these doors are kind of complicated circuitry, and it's easy to close them all at the end of a pass, but if we stay in EXPERIMENT POINTING mode and come out on the Sun side with the fine sun sensor doors closed, I want to know if we're going to get into any malfunction trouble on those switches. I want to know if it's required to go to solar inertial first (garble). Matter of fact, I'd like you guys to teleprinter up (garble) power down (garble).

CC Joe, we're LOS. We'll see you at Hawaii at 54.

PAO This is Skylab Control in a gap now between Guam and Hawaii. We'll simply leave the circuit up live for Hawaii and for the subsequent stateside pass on revolution 288. Skylab Control, standing by at 15:50.

END OF TAPE

SL-II MC468/1
Time: 10:54 CDT
6/3/73

CC Skylab, Houston; AOS 3 minutes.
SC Roger.
SC Bill, just to be super safe, let me confirm something. If I go into night with the S052 experiment safed, then I'll come out with it safed, as long as I don't touch the main power switch. Confirm, please.
CC That is affirmative, Joe.
SC Okay.
SC Houston, SPT.
CC Go, SPT.
SC Have an observation to make for the training people primarily. We're doing a building block on prominence 62 today, just now. And it's completely invisible as a prominence on H-ALPHA, unless I get the disk completely off the screen. And at that instant it blossoms into view. It's a beautiful large prominence about one minute of arc in length, sticking up from the disk there like a great big sore thumb. But I can't see it at all unless all of the disk is out of the (garble). Gives it a chance to open up.
CC We copy that, Joe.
SC That conflicts with something I said on tape the other night.
CC Okay.
CC Skylab, we're going LOS here. We'll see you at Goldstone at 16:05.
SC Okay.

END OF TAPE

CC Skylab, Houston. AOS for 13 minutes.
SC Roger.
SC And Houston, where do you have us right now?
CC Sorry, Pete, say again.
SC Where are we, Goldstone?
CC That's affirm.
SC Okay. If you want to check the TV, it's on.
CC Thank you.
SC Say, Houston, are you getting the TV?
CC Stand by half, Pete. We're working that one.
SC Okay, because it's - (laugh) the best thing that the TV shows so far is the contamination on the window.
CC Copy.
SC Houston, SPT.
CC Go. Houston standing by.
SC Okay, a note for the ATM PIs, a JOP 4, step 2 and step 3, I'm going to use the same positioning in pointing because there's only one orientation in which I can fill the slit, even though this is a bad orientation for S2A. On step 3B, I will roll and give S2A a good dispersion.
CC We copy that, Joe. Thank you.
CC Pete, you caught us one early on the TV. We were expecting it the next rev. However, Goldstone is receiving it nicely and if you would give us two revs of it as you come over the states, we would appreciate it.
SC Oh yeah, no - I was setting it up for next pass, but I just wanted you to know it was on if you wanted to check it.
CC I see. Okay, Pete, you - -
SC As you see, in the middle lower third, lower fourth of the picture is our wardroom window ice crystals.
SC Copy.
CC SPT, Houston.
SC Go ahead.
CC ATM would like for you to check your graying on S055 and proceed normally.
SC Yeah. I'm proceeding abnormally a little bit. In the first place, the pad is confusing at a glance because it says mechanical reference and then underneath it, it gives you a grading position, which is off mechanical reference. The other thing is that when you start - when you start out a path in optical references, which we customarily use, you either have to go once completely around to set the thing to mechanical zero, or you have to use it on setting reference

to optical zero, which will give them the mechanical setting they want. And that's what I've been in the process of figuring out. And about to get a roster in optical 762, which ought to be equivalent to mechanical 864, which is want they wanted, or 874.

CC Copy, Joe.
SC I think they'll understand.
CC Yeah, the medic - -

END OF TAPE

SL-II MCC 6/1
Time: 11:18 GMT
6/3/73

CC Skylab, Houston; AOS Ascension for about 3 minutes.
SC Roger.
SC Houston, Skylab. Sometime at your leisure, would you remind us how many exposures are on a roll of Nikon color exterior.
CC Wilco.
SC While you're at it, how about the color interior?
CC The color what?
SC Interior film.
CC PLT, Houston.
SC Go.
CC Can you take a change in the maneuver pad?
SC Houston, SPT. How long is this pass?
CC It's - less than a minute. Are you ready?
SC No.
CC Okay.
SC All right, go ahead, Houston. And I'll copy it in blank verse.
CC All right. After a momentum analysis, they want to make some changes in the starting time of the ZLV mode. That's on line 3. The GMT, make that 19:16 vices - vice 19:17. That will change your manevuer times. On line 4, the second time becomes 50006, vice 50005.
SC Roger.
CC Okay.
CC And the second correction, the third time becomes 06, vise's 05. On lines 9, change that 50005 to 50006; and change the time from 06 - correction, from 05 to 06. And line 15, change 42 to 45 degrees. We're going LOS now. I'll see you at Carnarvon.
SC Okay. I got the pad and I'm 2 minutes further behind on each end.
CC And we're sending up a new drift compensation on Y1.
PAO This is Skylab Control; 16:41 Greenwich mean time. Twenty-two minutes to Carnarvon, Australia, tracking station. Both the Carnarvon and Guam passes are virtually directly overhead from maximum duration on this particular revolution number 289. During the upcoming stateside pass, toward the end of the revolution 289, there will be some 12 minutes of live television; most likely out the wardroom window toward the Earth. Back again in 21 minutes for Carnarvon and Guam. This is Skylab Control, at 16:42.

END OF TAPE

CC Skylab, Houston; AOS for 10 minutes.
CC SPT, Houston.
SC Go ahead.
CC We have an indication that 82A was missed the last time. Just continue on normal OPS on the next pass and there's no problem on it. Also be - -
SC Well, Houston, as I told you last AOS, I would like very much to get that one exposure; namely, building block 6 Bravo. I left the canister pointed at the prominence and I'd like to snap that one off before I go sun center.
CC That's acceptable, Joe. Also, be advised that the X-rate gyro is spinning up. It's not on the line. It's just coming up.
SC Is that X3?
CC That's affirmative - X3, and it's just being warmed up.
SC Okay, unde..'and. We wondered - I was just looking at the gyro rates and I wondered why a gyro that wasn't powered up should have a rather high negative rate like that.
CC Copy - -
SC I think minus 0992.
CC Copy.
CC We tired to reach you, but a couple of minutes before the last pass was over, we lost comm with you.
SC Roger.
CC Skylab, LOS in 1 minute. AOS Goldstone, 17:43.
SC Roger.
PAO This is Skylab Control. Apparently we have had loss of signal through the Guam station. 14 minutes to stateside pass, beginning at Goldstone with out-the-window view, in the wardroom picture window across the states, coming across the Puget Sound area, exiting around the east coast of Florida, just south of Kennedy Space Center. Back again in 13 minutes with a rubberneck tour from 240 miles. At 17:29 Greenwich mean time, Skylab Control.

END OF TAPE

SL-II MCA72/1
Time: 12:17 CDT
6/3/73

CC Skylab, Houston; AOS for 10 minutes.

CC SPT, Houston.

SC Go ahead.

CC We have an indication that 82A was missed the last time. Just continue on normal OPS on the next pass and there's no problem on it. Also be - -

SC Well, Houston, as I told you last AOS, I would like very much to get that one exposure; namely, building block 6 Bravo. I left the canister pointed at the prominence and I'd like to snap that one off before I go sun center.

CC That's acceptable, Joe. Also, be advised that the X-rate gyro is spinning up. It's not on the line. It's just coming up.

SC Is that X3?

CC That's affirmative - X3, and it's just being warmed up.

SC Okay, unde.. and. We wondered - I was just looking at the gyro rates and I wondered why a gyro that wasn't powered up should have a rather high negative rate like that.

CC Copy - -

SC I think minus 0992.

CC Copy.

CC We tired to reach you, but a couple of minutes before the last pass was over, we lost comm with you.

SC Roger.

CC Skylab, LOS in 1 minute. AOS Goldstone, 17:43.

SC Roger.

PAO This is Skylab Control. Apparently we have had loss of signal through the Guam station. 14 m'nutes to stateside pass, beginning at Goldstone with out-the-window view, in the wardroom picture window across the states, coming across the Puget Sound area, exiting around the east coast of Florida, just south of Kennedy Space Center. Back again in 13 minutes with a rubberneck tour from 240 miles. At 17:29 Greenwich mean time, Skylab Control.

END OF TAPE

CC Without the motor power on, without that DAS command, you're not going to be able to take pictures on S052.

SC Don't understand that. That's what we've been doing for the last day. Houston, the S052 door is open. It's been open since - since yesterday.

CC We're copying you, Joe.

PAO Crossing the Cape. Commander Conrad apparently taking some Hasselblad pictures out the window. Bahama banks.

SC Houston, SPT. Is that not right, what I surmised, that we have been taking pictures with S052?

CC Joe, better say that one again.

SC I said, "Is it not correct that we have been taking pictures with S052?" You said something about we haven't been or couldn't.

CC Joe, our information is that you have not been taking pictures on S052 in that mode.

SC I don't understand why. That was the mode you put us in yesterday. The door is open and when we go MIRROR position to CAMERA and ACTIVATE, hell, we've shot a 100 frames since then, doing our normal building blocks. Tell me what's the problem is.

CC Stand by, Joe. We're trying to get together here. Joe, it's just since you've put the EVA AUTO DOOR switch to INHIBIT that you haven't been taking pictures.

SC Well, it's been cycling film through the camera. The frame count has been decreasing. The door is open and we're Sun centered. Now, why haven't we been taking pictures?

CC Stand by, Joe. They say that the mirror is in TV position, Joe.

SC Well, I manually moved the mirror to the CAMERA position. The second time around the TV image disappeared. Are they saying it went right back to camera the minute I gave it a start command, or what?

CC No, they say your okay, if you did the manual movement.

SC Oh, okay, okay.

CC We're going LOS here in about a minute.

SC Fine, take it then that we got all the pictures we were supposed to on S052, but wasted one group of frames.

CC That's affirmative, Joe. And we'll see you at Carnarvon at 18:43.

SC Okay.

SL-II MC-871/3
Time: 13:42 CDT
6/3/73

PAO This is Skylab Control; 18:00 Greenwich mean time. Loss of signal through the Bermuda station. Beginning of revolution 290; 16-minute live TV pass across the continental United States, great deal of cloud cover, and next station coming up is Carnarvon in 42 minutes. Away from Carnarvon we miss Vanguard and Ascension on this particular revolution. During the television pass, one could see Commander Conrad frequently in front of the camera taking still pictures out the round picture window in the wardroom. He apparently was not aware that he was partially blocking the TV image. At 18:01, back in 41 minutes for Carnarvon. Skylab Control.

END OF TAPE

SL-1 MCC-A 74/1
Time: 23:43 CDT
6/3/73

PAO — This is Skylab Control - -
SC — Roger.
PAO — - - Acquisition through the Carnarvon, Aus[illegible] tracking Station. Very brief pass at Carnarvon. Same applies for Guam. The crew at this time, in Skylab preparing for EREP or Earth Resources Experiment Package run number 3.

PAO — Today's Earth resources survey run will come ashore on the Pacific Coast, about 200 miles north of San Francisco and run down through central Mexico and come out again on the Pacific Coast near Guatemala. The total pass length is 11 minutes and begins at 2:22 p.m., central daylight time. And while the weather is predicted to be about 0 to 3/10ths cloud cover in the northern portion of the pass, the weather in Mexico has clabbered up considerably to where the cloud cover is ranging up to 8/10ths total cloud cover.

PAO — Quite a few of today's EREP studies have to do with geology in locating specific formations, fault lines, mineral deposits. And one of the hoped for surveys in the Mexico area, the state of Chihuahua, was a search for hydrocarbons, such as coal and oil. Earlier, the hydrocarbon had been erroneously - included diamonds, and this proves not to be true.

PAO — Not a great deal of conversation going on over Carnarvon But we'll stand by for Carnarvon. There'll be dead air between Carnarvon and Guam. And then the state-side pass for Earth Resources Survey. The crew will probably be rather quiet during that period, When they're operating the EREP instruments. Standing by at 18:47, Skylab Control.

CC — Skylab, LOS in 1 minute; Guam at 18:58. And like to remind you about the decrease in the lights as much as possible before the EREP pass.

SC — Roger.

CC — And we have you configured for [illegible]ate Ayron X1 and X2 in control.

SC — Okay. Total configuration on X1 and 2; understand.

CC — Copy - oger that.

PAO — This is Skylab Control. We have about a 9-minute gap here between Carnarvon and Guam stations. We'll take the circuit down at this time and return briefly for Guam. Between Guam and Texas, something like 26 minutes. At 18:49, Greenwich mean time; Skylab Control.

END OF TAPE

SL-II MC-475/1
Time: 13:56 CDT
6/3/73

PAO This is Skylab Control; at 18:57 Greenwich mean time. About 1 minute from acquisition and a very brief pass over the northwestern edge of the Guam tracking station. About 3 minutes total time across this station. Standing by to monitor any conversation that might come through Guam, as the crew aboard Skylab prepares for their Earth Resources Survey today. Flight Director Don Puddy, here in the Control Center polled flight controllers, to determine if they were GO for EREP pass and there were no dissenters.

CC Skylab, Houston; AOS 3 minutes.

SC Roger.

CC And Skylab, gyro Y1 is being compensated. You'll be in nominal configuration for EREP with Y1 and Y3. And at this time EREP is GO.

SC You bet your boots it is. Got a quick question for the EREP guys. Everytime 194 comes up we get a malf light, because - before it really gets up to speed, the cold cycle the cold mal, and all that jazz. And I've been turing it off and back on to reset the malf light, is that okay?

CC Stand by, Pete.

CC CDR, the malf light is function of temperatur You can either leave it or cycle it as you will.

SC Okay. Thank you. Also we need a little more warm up time on S191. It wasn't up to temperature, my warm up time, I let it run 10 minutes longer, just turned it on.

CC We copy.

CC Skylab, LOS in about 30 seconds. Goldstone at 19:19.

SC Okay.

PAO This is Skylab Control; 19:03 Greenwich mean time. About a 16-minute gap here across Guam station to stateside pass, starting at Goldstone and down through the Texas tracking station. About a 4000-mile EREP pass, which contains 32 different areas to be scanned by photographic and remote sensing equipment aboard Skylab. Aircraft, NASA research aircraft, will be flying over the same areas and operating similar instruments to help correlate the data gathered by Skylab equipment. Back again in 15 minutes for EREP pass, along ground track number 6, at 19:04 Greenwich mean time. This is Skylab Control.

END OF TAPE

SL-II MC-476/1
Time: 14:18 CDT
6/3/73

PAO This is Skylab Control; 19:18 Greenwich mean time. About 1 minute away from acquisition at Goldstone for the Earth Resources Survey across the western United States and central Mexico. Skylab II backup commander, Rusty Schweickart, and fellow astronaut, Ed Gibson, today spent a little over an hour and a half in the neutral bouyancy simulator in Marshall Space Flight Center, in Huntsville, Alabama. They were trying all three methods of loosening the aluminum strap, which is holding the solar array beam on the side of the orbital workshop. They tried the pry bar, and bone saw, and the wire bundle cutter, and each method was successfu Schweickart and Gibson deployed a pole from the EVA hatch in the MDA, and using the wire cutter on the outboard end, used it as a clamp, made a handrail for it out of the pole. Schweickart went on down the handrail to the solar array panel and performed all three operations with the three different methods of removing the strap. We're AOS over the stateside pass, standing by at 19:19.

SC Set the antenna out there, again. It's going to do all kinds of crazy things this time - No, not so crazy. On this one, just back and forth.

CC Skylab, Houston. AOS for 15 minutes.

SC Okay. We're in the maneuver.

CC Copy.

SC If you've got nothing else to say, Bill, for the EREP guys, for information, I put this on tape. Right now, Charlie 7 temp reading is 41 percent. Bravo 7, thermal detector temp is reading 87. That's 87 percent.

CC Copy.

SC Here. You want this light on?

SC It's on.

SC We there yet, Joe?

SC No. Our attitude, I mean. Okay. SCAT's on, (Garble) on; two ready lights.

SC 192 is on. We've got a ready light and we'r not in attitude yet.

SC S190 running. The ready light.

SC Okay. Status of the EREP C & D panel for right now - everything is normal, except no S191 ready lights and the F190 cover clothesline is on.

SC S191 thermal detector temp. I can make it 86, if I tried hard.

SC Okay. SCAT's gone STANDBY, (garble) is gone STANDBY. In track Contiguous, 0. SCAT's on, RAD's on.

SC Plau/ I'm now, for some reason, getting a flickering gimbal light on S193.

CC Copy.

SC Yeah. That's the pitch gimbal.
SC SCAT's STANDBY, RAD's STANDBY.
SC Cal on 194 and the altimeter is going on. Got a READY LIGHT.
SC The other person reports that he got all three of his RTF sites this time.

END OF TAPE

SC The altimeter looks good, though I haven't seen the flicker of the unlock light this time.
SC Okay 192 is checked now. Stand by for an AUTO CAL on that (garble) in 5 seconds. Now, give me an AUTO CAL, please. Thank you.
SC Yeah.
SC Okay. I just got an altimeter unlock light, and it was on for about 3 seconds and it went out. It flickered a couple times and it's staying out now. Probably was the end of the mode, I would guess.
SC Okay. ALTIMETER is STANDBY, 94, OFF; 93 RAD, OFF; and ALTIMETER OFF.
SC Should be the gulf coast.
SC Again?
SC Can you see that cut in Padre Island?
SC Okay, gang. On the status report on the 191 (garble), it's struggling, but it sure isn't coming down. I can tell it's on the heavy side of 85 percent now.
SC Okay. 192 to READY. And wegot a kind of a (garble) tape blinking light, but it finally came on. For information, it took almost 10 seconds for that tape motion light to come back on, (garble) switching 192 to READY.
SC The tape motion light is flickering, round. It's on, and then it starts flickering, getting dimmer. It'll go out and then comes back in. It's been on steady since I started telling you that.
SC 192 to STANDBY - CHECK. Should go it's STANDBY and a the tape motion light blinked off and came right back on.
SC We're waiting for that to tell you about it.
SC Also for information, EREP gang, (garble) Charlie 8 tape recorder keeps remaining in oscillating between 20 and 40 percent, about 1 cycle per second.
CC Time for you to start the maneuver, Joe. Give me a mark when you start it. Will you please.
SC Where?
CC You hit the stop. You guys - you guys really had that S190 figured out. It stopped exactly on the pad time.
SC Okay, we're going off (garble), Houston.
CC We copy. Skylab, Houston. We'll be LOS in 1 minute. Vanguard at 19:44. We would like for you to delay housekeeping 70A, that's the mol sieve fan, until pre-sleep activities today.
SC Okay.
PAO This is Skylab Control; Greenwich mean time 19 hours 35 minutes. Third Earth resources pass of the skylab mission has just been concluded, with the Skylab vehicle

recording data, running on a path from north of San Francisco, crossing the state of California, Nevada, and Arizona and cutting through the heart of Mexico. We have LOS now. The next station pass will be Vanguard in 8 minutes. This is Skylab Control.

END OF TAPE

SL-II MO-479/1
Time: 14:44 CST, 10:19:44 GMT
4/3/73

PAO This is Skylab Control, Greenwich mean time 19 hours and 44 minutes. We anticipate acquisition over the Vanguard tracking station in approximately 30 seconds. We will hold the line up for conservations between Skylab Control with Dr. William Thornton, Cap Com, and the Skylab crew.

CC Skylab, Houston, AOS ten minutes.

CDR Roger, Houston. And be advised we have a new one for you. We got a master alarm CSM and we have an STS (garble). The oxidizer is reading 160. When I went into there to answer the alarm I reset the master alarm and it came back on again before I quite got it over to the changes, but I did notice that the OPS pressure was operating but it appears to have stabilized at 160.

CC We copy, Pete.

CC Pete, we're looking at that pressure and we're reading 162 and it's been holding relatively constant in that region for some time.

CDR Okay, well that's well out of the GREEN for us up here and ours has been showing in the GREEN up until - or at least it has this morning when PJ looked at it, so how long you been looking at that? Could it be a thermal problem or we got a CAUTION and WARNING that's very close to that that the power's build up of something.

CC We're looking at it Pete.

CDR Okay.

CDR We're not going anywhere so we'll wait for you.

CC Copy.

CC CDR, Houston.

CDR Go ahead.

CC We've been tracking this since day 147 and there's a good correlation between the temperature which has been falling from 66 - it's now showing 44 degrees and the pressure has fallen in that time from 174 to 163 so we think it's the thermal effect.

CDR Okay. Shall we go inhibit the SPS (garble) light on the inhibit panel?

CC We recommend that, Pete.

CDR Solved another one for today. Thank you.

CC That thing trips at 162, Pete, so it takes very little to do it.

CDR Yeah, I wish you guys could have given us a clue.

CC Skylab, Houston. We'll be LOS in about a minute and a half here. Goldstone, AOS at 20:59.

CDR Roger, Roger.

CC If you still read, Pete, we have 15 completes, 15 completes.

SL-II MC-479/2
Time: 14:44 CDT, 10:19:44 GMT
6/3/73

CDR — Fifteen completes on what?
CC — That's on the CBRM's on the batteries.
CDR — Oh, okay, very good. I'm playing at EREP and wasn't thinking about that.
PAO — This is Skylab Control, Greenwich mean time 19 hours 57 minutes. We have had loss of signal at the Vanguard tracking station. Next acquisition will be one hour and two minutes from now over Goldstone. Discussion between Cap Com Bill Thornton and Commander Pete Conrad followed the caution and warning light from the command module which indicated a malfunction or a problem in the oxidizer tank of the service propulsion module. Commander Conrad went down and reset the switches and the pressure is presently at 162. The ground has advised him that the pressure has been dropping the last several days from 174 several days ago, to its present reading of 162. The ground thinks this a thermal problem and procedures will be worked out to bring the pressure back up in the oxidizer tank. This is Skylab Control, Greenwich mean time 19 hours 58 minutes.

END OF TAPE

SL-II MC-480/1
Time: 19:02 GMT, 10:20:02 GMT
6/3/73

PAO Skylab Control, Greenwich mean time 20 hours 2 minutes. We have LOS after the Vanguard pass. Next station will be Goldstone in approximately 52 minutes. Mr. William C. Schneider, Director of the Skylab Program Office, NASA headquarters is scheduled to begin a press conference in the Building 1 news room momentarily. We will keep the line down during the press conference and replay any air-to-ground over the Goldstone pass. This is Skylab Control 20 hours 3 minutes.

END OF TAPE

SL-II MC-181/1
Time: 15:58 CDT 10:20:58 GMT
6/3/73

PAO This is Skylab Control, Greenwich mean time 20 hours 58 minutes. We anticipate acqutsition of the Skylab space station as it crosses into the Goldstone tracking area. At this time the Science Pilot, Dr. Joseph Kerwin should be performing the M092 and M093 experiments with Commander Conrad serving as the observer. Pilot P[illegible] Weitz is at the ATM control and display panel. We'll pick up any live air to ground at this time.

CC Skylab Houston. AOS for 4 minutes.

CC Skylab squeal blocked you.

CDR Roger.

CC CDR Houston.

CDR Go ahead.

CC There is a request to look at the parasol, especially the color of it, and report at your first opportunity.

CDR Okay, do you want that right now. We can go look at it right now if you want .

CC No no, just when ever it's convenient.

CDR Okay, we'll get you a report later on today on that.

CC PLT Houston.

PLT Go ahead.

CC We're sending up an S183 malfunction and check out procedure. And we show you have not inhibited MOMENTUM DUMP, and we would like for you to accomplish this.

PLT You want momentum dump inhibited now?

CC Negative, negative. That was the wrong call.

PLT Okay.

CC We do not, repeat, do not INHIBIT MOMENTUM DUMP.

PLT Okay, I didn't inhibit it.

CC And be advised on PCG number 7, we are going to enable the amp hour meter to observe it.

PLT Okay.

CC That's the secondary amp hour meter.

PLT Rog.

CC And Skylab, we're going LOS. We'll see you at Vanguard 21:21.

PAO This is Skylab Control, Greenwich mean time 21 hours 05 minutes. Capcom Dr. William Thornton, requested Commander Conrad at the crew's earliest convenience today, to look at the parasol. The parasol Sun shield, which the crew deployed on their second day in space on May 26.

SL-II MCC #81/2
Time: 15:30 CDT 10:20:30 GMT
6/3/73

The parasol was installed to provide thermal protection for the orbital workshop. And the crew has been asked to look at it, especially to look at the color of the covering. The covering is 22 by 24. It was installed through the solar scientific airlock on the second day of the mission. This is Skylab Control. We've had loss of signal at Goldstone. The next pass is at Vanguard in 15 minutes. This is Skylab Control at Greenwich mean time 21 hours 6 minutes.

END OF TAPE

SL-II MC-[illegible]/1
Time: 16:19 CST, 10:21:19 GMT
6/3/73

PAO — This is Skylab Control, Greenwich mean time 21 hours 19 minutes. Skylab space station on it's - finishing it's 297th revolution is expected to come into contact with the Vanguard tracking station momentarily. This will be a 10 minute pass. We'll hold the line up for any conversations between Cap Com Dr. Bill Thornton and the Skylab crew.

CC — Skylab, Houston. AOS one zero minutes.

SPT — Rog. Houston.

(Music)

CC — We didn't want Joe going to sleep in the tank so that was a courtesy of the Flight Director.

PLT — Did you hear that, Joe?

CC — Go ahead.

SPT — I'm on 1093, but thank you.

CC — Should have done something to the VCG then.

SPT — There you go.

SPT — Who's Flight today?

CC — Yeah, that was Dr. Puddy.

SPT — Ah so.

END OF TAPE

SL-II MO-483/1
Time: 16:25 CDT, 10:21:25 GMT
6/3/73

CC PLT, Houston.
PLT Hello.
CC PLT, please leave the SO-56 high voltage power ON, that's the high voltage POWER ON SO56.
PLT Okay. You want the beryllium and aluminum high voltage power left ON.
CC That's affirm.
CC Also, PLT at your opportunity would you identify the screens which were vacuumed today?
PLT Yeah, in a minute, I'm shut down.
CC No rush.
CC And Skylab, LOS in one minute, AOS Hawaii 22:30.
PLT Whee, an hour from now. Okay, the screens that were cleaned - the wardroom screen, the portable fan, the OWS mixing chamber inlet screen, the MDA fans one and two and the CSM. Also, the mol sieve inlet screens and the airlock circ fans inlet screens.
CC We copy that.
CC And you have an S-183 malfunction procedure pad onboard now.
PLT Let's see, okay.
PAO This is Skylab Control, Greenwich mean time 21 hours 32 minutes as we lose signal over the Vanguard tracking station. Cap Com Dr. Bill Thornton arranged to play a - the Air Force Song as the ground thought Dr. Joe Kerwin was still performing the MO-92 experiment. However, he had completed that experiment and he was riding the bicycle ergometer as part of the MO-93 vectorcardiogram experiment, which is performed about 14 times on each crewmen during the 28-day flight. The crew also commented on the number of screens that they cleaned in the workshop today. This is part of the weekly housekeeping chores the crew is required to do as part of the housekeeping and maintenance operations of the vehicle. The MO-93 experiment is - the principle investigator is Dr. Newton Allebach of the Naval Aerospace Medical Research Institute of Pensacola Florida. Next acquisition is over Hawaii in 56 minutes. This is Skylab Control, Greenwich mean time 21 minutes - excuse me - 21 hours 33 minutes.

END OF TAPE

SL-II MC-484/1
Time: 17:29 CDT 10:22:29 GMT
6/3/73

PAO This is Skylab Control, Greenwich mean time 22 hours 29 minutes. We will have acquisition over Hawaii momentarily for almost an 8 minute pass.

CC Skylab Houston. AOS 8 minutes.

CDR Hello Houston, CDR. How do you read?

CC Go Skylab, you've got a squeal.

CC Skylab Houston, standing by.

CDR Okay Houston, I'm getting rid of the squeal. Checked the sail or the parasol. And the orange is getting a little faded. I would say that it looks like that orange survivel material, but it is back to gold. It's getting a little more yellowish than orange not brown. But, not bad.

CC Does everything else look in place and stable and unchanged Pete?

CDR Yes it does. It looks exactly the same.

CC Thank you.

CDR With regard to S183. I followed your procedures and there wasn't quite, it was half way in and half way out. However, there was no way to withdraw the plate. I successfully got the magazine out and it closed according to the procedures and put it away. And I had the plate half way in and half way out. So I put the SAL power cable back on, turned the power on and it went through the rest of the cycle and took the plate out. I couldn't get it out manually. And Flopped over to 09. Now my question is, is the canister exact at 08 or is the canister exact at 09 or is it somewhere in between? And what would you like for me to do now that I've got this plate in my hand and S183 is sitting at 09?

CC We copy that Pete. And we'll get you an answer back. While we're waiting for that Pete, a number of updates and such. The flight plans are going to be coming up and are coming up and we're leaving 45 minutes in the flight plan tomorrow for that. Also be advised that Hawaii's configured for XUV monitoring on TV.

CDR Okay.

CDR Okay, go ahead Houston.

CC CDR, Houston.

CDR Go ahead.

CC They want you to put the blank door on the 183 and to store and evacuate the canister. That's on the - -

CDR That is (garble) the 183 is going down right now and as soon as I get a vacuum on it, I'll evacuate the film subcanister.

CC — We copy that.
CDR — What would you like me to do with the plate? Bring it back or get rid of it?
CC — Pete, we would like for you to bring that plate back if possible.
CDR — Okay.
CC — PLT place the video switch into ATM-2.
SPT — Houston the PLT is in the middle of changing building blocks at the moment and he'll get to the TV if he can.
CC — We copy that.
SPT — I think he had another double mode on S056, which always pulls things down.
CC — We copy.
SPT — We've got another little message for you Houston.
CC — Go ahead.
SPT — In case the flight director is uneducated, that's Victory at Sea.
CC — The, we may see Dr. Puddy cry today yet.
SPT — Eat your heart out, earthlings.
PLT — What do you want on the XUV, Bill?
CC — Thank you sir.
PLT — Houston, what do you want on the XUV?
CC — Stand by.
CC — PLT, we wanted that as the video ATM switch in mode 2.
PLT — Affirmative.
CC — Skylab LOS in about 30 seconds. We'll see you at Vanguard at 22:59.
CDR — Roger Houston.
PAO — This is Skylab Control, Greenwich mean time 22 hours 39 minutes. With the strains of Anchors Away, Skylab space station passed over, out of the range of Hawaii tracking station. Commander Pete Conrad discussed with the ground the changeing color of the parasol sun shade, which the crew put out on the second day of the mission. He said it looks a little more yellowish than orange and looks exactly the same as when they deployed it. Dr. Joseph Kerwin plugged into the ground the theme of Victory at Sea, theme song from the TV series of several years ago, and reminded the flight director and said "eat your heart out you earthlings." And with the strains of Anchors Away, we'll drop the line and come back up at Vanguard in 19 minutes from now. Skylab Control at 22 hours 40 minutes.

END OF TAPE

PAO — This is Skylab Control 22 hours 58 minutes as the Skylab space station approaches the sphere of the Van-Guard tracking station. We expect conversation between Cap Com Dr. Bill Thornton and the Skylab crew. Science Pilot, Joseph Kerwin should be just have completed a physical training exercise aboard the spacecraft and normally the crew rides the bicycle ergometer to - on this exercise.

CC — Skylab, Houston. AOS 9 minutes.

CDR — Roger.

SPT — Houston, got a couple of questions for you.

CC — Go ahead, SPT.

SPT — Okay, number one. Would the PI's like the SO-56 high voltages left on tonight or have they got it updated?

CC — Stand by half.

CC — While we're waiting for that Joe, would it be possible for you to run 133 tonight using one of the caps from 412? This was supposed to have gotten up last night but it didn't make it.

SPT — You betcha.

CC — Thank you, sir.

SPT — Okay. (Garble) Okay, I have a confession to make, Houston. I was late making my radiation VTL and I didn't get all the measurements, so would you re-scedule that for me please?

CC — I missed part of that one.

SPT — Okay, I have radiation one, two, th.. .., and four this afternoon and I was late and didn't get the readings in the anamaly like I'm supposed to, so would you please re-schedule that?

CC — We will re-schedule that one.

SPT — Okay, and last thing for the moment, Houston. We've looked at a stowage book in attempting to follow your - the instruction at the end of your last pass. We cannot find the anchor? Where is it please?

CC — We've never known the Navy yet to launch a ship without an anchor. We couldn't imagine you not having a couple aboard.

SPT — We're going to have to use the G&C nail's. (Laughter)

CC — We copy.

CC — And we won't have SO56 high voltage off. We'll turn it on again tomorrow, Joe.

SPT — Roger.

CC — CDR, Houston.

CC — PLT, Houston.

PLT — Go ahead.

SL-11 MC-463/2
Time: 17:58 CDT, 10:22:58 GMT
6/3/73

CC We'd like for you to turn the VTR power OFF at your convenienne.

PLT Okay.

END OF TAPE

SL-II MC-486/1
Time: 16:04 CDT 10:23:04 GMT
6/3/73

CC — SPT Houston.
SPT — Go ahead.
CC — Pete had a question on the 183 carousel. We'll send up a procedure to verify its position before its used again, if in fact it's ever used again. We will - -
SPT — Roger.
CC — We will run tomorrow with the DAC on the 183, so we won't be using it all tomorrow.
SPT — Okay.
CDR — It will run with just the DAC and not stick the film carousel back in huh?
CC — That's what they're planning for tomorrow Pete.
CDR — Well look, are you sure that I didn't hang it up? I don't think I did, but it is entirely possible I could have shut it off at mid sequence. But, if I did I guess it should have (garble) huh?
CC — Pete, when you remove that thing in the removal procedure there is a half turn or some such there that is supposed to advance it, and they think it is in the 09 position.
CDR — Oh, let me tell you what happened now. It's in - I couldn't get the film slider out because it was only about halfway and it was all locked up in there. And so I put the SAL power cable back on just like you guys said to do and it went chuck, chuck, chuck through the rest of the step and spit the film slider out by itself and flipped over to 09. That's exactly where it is. It's in 09 ready to go and I guess the film carousel is too.
CC — That's what we assume Pete, we understand that. I was talking referring to the film carousel being advanced to 9.
CDR — Okay, is there some way we can check that?
CC — Pete, they will send up a procedure on the carousel if they ever use the carousel again.
CDR — Okay. Now of course we've got the other carousel up here you know. Don't forget that. It may be bad film, but it can't be that bad can it? Or is it wiped out?
CC — Pete, because of maneuver constraints tomorrow probably is the last time 183 will be run. And in the future, we'll consider that other canister.
CDR — Okay.
CC — And we're going LOS here in about 30 seconds. We'll see you at Hawaii at 00:06.
CDR — Okay. Bill, if you see or give my wife a call, tell her that I miss her. I will not be home for

SL-II MC-486/2
Time: 18:04 CDT 10:23:04 GMT
6/3/73

dinner, but I will mow the lawn as soon as I come home. And that I hope the kids said a special prayer at church today for all the sky troops.

CC We'll call her, Pete.

PAO This is Skylab Control. Greenwich mean time 23 hours 9 minutes. Capcom Bill Thornton discussing with Commander Conrad the difficulties with the S183 ultraviolet panorama camera, which is the experiment of Dr. George Courtes of the Laboratory of Astronautics and Space of Marseilles, France. His experiment apparently jammed up earlier, and it was his recommendation to take the carousel of film out and return the exposed film. And tomorrow the crew may have procedures to put the data acquisition camera in place of that and attempt to get more data for Dr. Courtes. As the spacecraft begins its 294th revolution after passing the tracking station at Vanguard, Science Pilot Kerwin asked the Capcom Dr. Thornton to call his wife, "Give my wife a call and tell her I will not be home for dinner," but he will mow the grass when he gets home and he hoped the kids said a special prayer at church this morning for the Skylab troops. This is Skylab Control at Greenwich mean time 23 hours and 11 minutes. Our next acquisition over Hawaii tracking station in 55 minutes.

END OF TAPE

SL-II MC-487/1
Time: 18:12 CDT, 10:23:12 GMT
6/3/73

PAO This is Skylab Control, Greenwich mean time 23 hours and 12 minutes. We've had a change over at the Mission Control Center with Flight Director, Don Puddy of the crimson team, turning over controls of the MOCR to Flight Director, Neil Hutchinson, who heads the silver team. Oncoming Cap Com will be Dr. Carl Henize, astronaut Dr. Carl Henize. Next acquisition Hawaii tracking station in 53 minutes. This is Skylab Control.

END OF TAPE

SL-II MC-488/1
Time: 18:42 CDT, 10:23:42 GMT
6/3/73

PAO This is Skylab Control, Greenwich mean time 23 hours 42 minutes. Flight Director, Don Puddy will be in the news room in building 1 in 10 minutes to answer newsmens questions. However, there will be no formal Change-of-shift briefing. He will be available in 10 minutes to answer questions. This is Skylab Control at 23 hours 43 minutes G.m.t.

END OF TAPE

SL-II MC-489/1
Time: 13:20 [illegible] 00:20 GMT
6/3/73

PAO Skylab Control, Greenwich mean time 00:20 minutes. We've just had a pass over Hawaii during the previous press conference with Flight Director, Don Puddy. We'll bring up that line now. During that conversation Cap Com Dr. Story Musgrave, who is a member of the backup crew discussed with the crew the fact that the procedures for the proposed EVA will be passed up by teleprinter tomorrow to the crew for review and then on Tuesday, the plan is to hold a discussion with the crew for a couple of revolutions on the procedures. Discussion will also be viewed by television from the spacecraft. Pick up that live conversation now.

CC Skylab, this is Houston standing by for 10 minutes.

CDR Hi, there, Houston. Skylab, here.

CC Skylab, if you have a minute to discuss the M-131 data we'd like to strike a compromise with you there. We would like to have complete first-run data on all three crew members recorded on channel B and this means that we would like to have all the first-run data on the CDR and we'd also like to have the page-4-20 data on the PLT which hasn't been reported yet. Then we promise that we won't ask for more.

CDR Okay.

CDR Say, Carl, where do we give you these status report (garble)?

CC Evening status reports going to be over Vanguard. That's the next AOS.

CDR Okay.

CC CDR, Houston.

CDR Go ahead.

CC We're planning on an EVA this coming week to deploy SAS panel number 1 and possibly also to lock open SO54 door. Next evening we'll send up on the teleprinter some procedures for you and also talk them over with you real-time to limited extend tomorrow. The day after tomorrow that evening, Tuesday evening, we'll have maybe two or three revs discussing the procedures with you, including probably a TV conference for that EVA.

CDR A TV conference. You guys happy to work something out over there huh, sir?

CC Yeah, it's looking pretty good. I haven't been to it myself because I've been right here, but from the sounds of it, it looks pretty good. It's basically a five pole extension with a cutting tool on the end of it and grabbing hold of the strips at the SAS wing, tying down the near end to the fixed airlock shroud. And this will give you an EVA trail going out there.

CDR Very good.

SL-II MC-489/2
Time: 19:20 CDT, 11:00:20 GMT
6/3/73

CDR We aim to please. We're more than happy to do anything we can.

CC Skylab, Houston. We have 30 seconds to LOS. We'll see you over Vanguard at 00:38. We will be dumping recorders there and we'll be standing by for an evening status report.

CDR Okay.

PAO This is Skylab Control at 00:23 minutes Greenwich mean time. Next acquisition will be over the Vanguard tracking station. In 14 minutes, we'll have a seven minute pass at that time. This is Skylab Control, Greenwich mean time 00:23 minutes.

END OF TAPE

SL-II MC-490/1
Time: 19:37 CDT 11:00:37 GMT
6/3/73

PAO This is Skylab Control, Greenwich mean time 00:37 minutes. We expect a air to ground coming up over the Vanguard tracking station with Capcom, Dr. Carl Henize. This pass is the regularly scheduled evening status report, from the crew.

CC Skylab, this is Houston, standing by over Vanguard for the next 7 minutes. We will be dumping recorders on this pass.

CDR Okay Houston, Roger.

CC And a couple of other notes. The evening questions will be onboard shortly. And whoever is going up that way might be reminded to turn the Seive B fan on for the night. Another reminder is we will want the AM circ fans off tonight.

CDR The (garble) are off forever.

CC Okay. One other note is that we will be turning off the primary AM coolant loop. And you can expect a flow line on the caution and warning.

CDR Okay.

CC Pardon me.

CDR The CDR.

CC Pardon me, they tell me we're turning it on instead of off.

CDR Okay.

CDR Okay, for the meals, the CDR ate everything except the snack, coffee with sugar.

CC We copy.

CDR Okay the SPT, ate everything today except his snack lemonade. And he ate 4.5 optional salt, excuse me the CDR had 7.0 optional salt.

CC Roger.

CDR PLT, did not drink his coffee with sugar for breakfast. Didn't eat all of his lunch and the corn he did not eat at dinner and he had half of his bread, 2.5 optional salt, 1.0 Delta H20, that was plus 1.0 Delta H20. And he says he has given up on the corn, and he does not intend to eat it any more, and he would like the people to look around for a substitute if possible, if not he'll take pills for it. I think all 3 of us have kind of given up on the corn, although the other 2 of us are still eating it to some degree, because it just doesn't reconstitute very well. I can't put my finger on it, maybe it's because it is not hot. The other thing that the PLT did today was he drank a grape drink, which he says he is sorry about, because, he thought it was free, it turns out it is not, so you'll have to add one grape drink to the rest of his stuff, maybe he can give up a pill.

CC Okay.

CDR Okay, the photo lodge status report for day

154 is: 16 millimeter in the EREP free PH0176. Take up is not applicable. M151, M092, PC1030, MT01, S183 is a UA0385, take up is not applicable. Thirty-five millimeter, T126 frame count 31. ZX22 frame count 60 (garble) 50. Seventy millimeter ZX05, 128, EREPs 190A set Q came back 17462, 2 is 9662; 3 is 7183; 4 is 6570; 5 is 8337; 6 is 7240. The drawer A configuarrion stands as follows Alfa 1 is 02, Charlie (garble) 0585; Charlie India 01. Alfa 2 is 03; Charlie India 0319; Mike Tango 10. Alfa 3 is 04; Charlie India 0430 Mike Tango C1; floating is 05; Charlie India 25, 100 percent; Mike Tango 11.

CC We copy.

CDR There were no flight plan deviations other than RAD 1, 2, 3, and 4, which the SPT didn't have enough time to get off. So we'd like to reschedule that one. He'd like to know if he could do it next pass when we're in the anomoly? The stowage items were accomplished today from checklist transfer (garble) the command module work load takes, at least one full hour. It shouldn't be scheduled that way, in the future and in future flight. I don't think there is anything else in the evening status report. It was another good day as far as (garble) went. We got all the work accomplished. We had time to do some troubleshooting. And we liked the flight plan, we got it all done.

CC Roger, Pete. Thank you for the good report. And flight says our apologies for not having a flight plan onboard yet, but we'll have it up there before you go to bed.

CDR Yeah, you guys (garble) up in the air.

CC Rog. We've got about 40 minutes to LOS. We'll see you in about 8 minutes from now, and you might ask the PLT to stand by for a star tracker pad at that time.

CDR Okay.

CC And we would confirm that we like the RAD survey over the anomoly on the next pass. Thank you.

CDR Roger, and will be done.

PLT Give me a starting time for that Carl, if you can?

CC Stand by.

CC 02:14, 02:14.

PLT Thank you.

CC We'll be in the anomoly 12 minutes on that pass.

PLT Okay.

PAO This is Skylab Control. Greenwich mean time 00:47 minutes. Capcom Carl Henize recieved the evening

SL-II MC-490/3
Time: 19:37 CDT 11:00:37 GMT
6/3/73

Status report from Commander Pete Conrad, and also advised the crew that to turn the MOL Sieve fan off, the sieve the molecular Sieve, MOL Sieve is the molecular Sieve which is a pair of devices located in the airlock module which remove carbon dioxide and water from the Skylab atmosphere. At the letter part of the evening status report, Commander Conrad read off some long numbers about the film usage and such. And the numbers identified the locations in which each film was placed in the film canister numbered and they are placed in certain locations in the multiple docking adaptor. Commander Conrad also reported that today Sunday, the 10th day of their mission, he reported it as another good day, and all the work was accomplished on the flight plan. This is Skylab Control at 00:48 minutes. We'll leave the line up for the next pass which is at Ascension in approximately 6 minutes.

END OF TAPE

SL-II MC-491/1
Time: 19:49 CDT, 11:00:49 GMT
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CC Skylab, Houston standing by for five minutes over Ascension.
PLT Roger.
CC And I have the star tracker pad for the PLT at his convenience.
PLT Okay, the PLT just happens to have a pad format out of his SWS update book, so go ahead.
CC Roger. The star is Achernar. After 5,000 we have a zero; day, 3400; day, 5500; inner gimbal, minus 0052; outer gimbal, plus 1160; valid 1550000 21 a 0000. No remarks.
PLT Got it Carl, thank you.
CC Okay.
CC Pete, we have a possible discrepancy down here on the EREP frame reading. We'd like for you to confirm the frame reading on EREP mag 5.
CC And, Paul. That star's not available until about orbital noon and it's - we can't really acquire it at the present time.
PLT Then I guess I don't understand the pad.
PLT Houston, the CDR says the EREP takes five frames remaining in 8337.
CC We copy. 8337, thank you.
PLT Go ahead and explain to me why the star isn't available.
CC Roger.
PLT Let me tell you how I'm interpreting it instead.. Day 34 to day 55 to me means that when this clock says 35, 34 minutes of daylight remaining which includes that and goes all through the night time and until it says 55 minutes of daylight remaining means the star's available.
CC Stand by on that. We've got 14 seconds to LOS and we will have a - we'll see you over Vanguard in about an hour from now, 02:15. We will have a recorder dump at that time and that will be the medical conference.
PLT Okay.
CC Paul, your main problem at the present time is there is a momentum dump in progress. Your interpretation was correct otherwise.
PLT (Garble)
CC Your interpretation of that pad was correct but at the present time there is a momentum dump in progress.
PLT Oh, and it's a vehicle. Okay, good. That explains it.
CC Great.
PAO This is Skylab Control, Greenwich mean time one hour 00 minutes. We have just lost acquisition

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of the Skylab space station on its pass at the outer limits of the Ascension tracking station. Cap Com Dr. Carl Henize was passing up to the crew a star tracker pad for the star tracker on board which is the device that provides star reference to the Apollo telescope mount attitude pointing control system as the vehicle goes on a night side of an orbit in the solar inertial attitude. The tracker is normally fixed on stars Achernar and Canopus and Acrux. Next pass will be over Vanguard in one hour and 14 minutes from now. This is Skylab Control at Greenwich mean time one hour and 0 minutes.

END OF TAPE

SL-II MC-492/1
Time: 20:32 CDT, 11:01:32 GMT
6/3/73

PAO This is Skylab Control, Greenwich mean time one hour 32 minutes. Monday June 4th, Skylab space station will carry out an EREP pass, EREP pass number four along track number 19. This pass will begin at 17:04 Greenwich mean time as the spacecraft passes over Rapid City, South Dakota. The track will carry the spacecraft over Nebraska, Iowa, Missouri, Kentucky, Tennessee, Georgia, out over the Atlantic Ocean and cross the Virgin Islands and Puerto Rico. This pass will cover agriculture sites as well as regional urban sites and some photography will be made of the weather conditions that presently exist in the central part of the United States. In support of tomorrow's EREP activities, several NASA aircraft will be airborne to make underflights of the ground track. These flights are scheduled to be carried out in Atlanta, Georgia, as well as the Black Hills in South Dakota. The track will cover approximately 3,000 miles beginning with the data take over Rapid City, South Dakota, crossing over Atlanta, as well as Savanna, Georgia and the Virgin Islands and Puerto Rico. This is Skylab Control at Greenwich mean time one hour 34 minutes. Next acquisition of the Skylab space station will be over the Vanguard tracking station in 41 minutes. This is Skylab Control.

END OF TAPE

SL-II MC-493/1
Time: 21:14 CDT, 11:02:14 GMT
6/3/73

PAO This is Skylab Control, Greenwich mean time two hours and 14 minutes with anticipated acquisition over the Vanguard tracking station. This is probably the final pass for conversation with the crew tonight before the crew retires in the orbital workshop. We'll hold the line up for any possible conversation.

END OF TAPE

SL-II MC-493/1
Time: 21:14 CDT, 11:02:14 GMT
6/3/73

PAO This is Skylab Control, Greenwich mean time two hours and 14 minutes with anticipated acquisition over the Vanguard tracking station. This is probably the final pass for conversation with the crew tonight before the crew retires in the orbital workshop. We'll hold the line up for any possible conversation.

END OF TAPE

SL-II MC- 494/1*
Time: 21:27 CDT, 11:02:27 GMT
6/3/73

CC Skylab, this is Houston st[illegible] by for 11 minutes over Ascension.

CDR Rog, Houston. We were doing [illegible] normal race around the upper end there before going to [illegible] I have the answers to the questions. Are you ready?

CC Okay. We're standing by.

CDR Question number one is the only time we get a response, with the (garble) - Where are we at? I think it was either active region 17 or 14 - I don't remember which one it was but they would remember. It had the large Sun spot on, we could see that. We haven't seen any since then. Okay, answer to question number two the GR cleaning. We used the standard package of 10 and that's been sufficient. Three, the deposits sort of look like graphite or the dark dirt, black, fine and they show up on the pitch roller on the tape ZP-[illegible]. And the threading is normal. We haven't seen anything that's not normal, on that. Number five, the take up reel (garble) appears normal. And that is yes, it does seem perfectly normal. The small fuzz that you saw on the TV pictures today, question number six is our friendly wardroom window ice crystals. Still with me?

CC Roger, we copy.

CDR Okay, question number seven. When was S-191 cooler turned on? At 18:58 Zulu. Did you notice excessive drag when (garble) advancing (garble) EREP after pad? The answer is no. And which (garble) do you think we will ask when - we will have to vacuum every three days? And that's all of us. And all three.

CC Okay, Pete, we copy.

CDR And that takes care of all the questions.

CC Okay. Thank you very much. We have one small point of information for you. We will be setting up the rate gyro configuration tonight for - so that the redundancy management is operating and this makes it less likely that we would be waking you up in case one of the gyros failed.

CDR Say, when we are going on CMG's only?

CC Say again.

CDR When are we going to the CMG only configuration you were talking about this morning?

CC Stand by.

CC Pete the word on that is we'll probably try that tomorrow night.

CDR Okay, Carl, very good. We'll see you in the morning. Now, what's our first station pass (garble)? Do we have to wake up?

CC Stand by.

CC Skylab, Houston. Our passes tomorrow morning are as follows, we can wake you at Madrid at 10:50, or

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you can set your alarm clock. The next pass after Madrid would be Honeysuckle at 11:30.

CDR Okay, we'll set our alarm and for (garble).

CC Okay, we expect that you will set your alarm.

CDR Okay, and the last thing is that the add to the CDR's food tonight a can of butter cookies and add to the PLT's food tonight a can of butter cookies. (Garble)

CC Okay, we copy.

END OF TAPE

SL-II MC-495/1
Time: 21:34 CDT 11:02:34 GMT
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CC Skylab Houston. One minute to LOS. See you in the morning. Good night, sleep tight.
PLT Okay, goodnight, Carl.
PLT Houston, if you are still there, the rolly polly CDR said add another can of butter cookies to his chow today.
CC Hey, you guys are going to be getting fat up there, be careful.
CDR You guys are working us so hard, we need all this energy.
CC Roger.
PAO This is Skylab Control. Greenwich mean time 2 hours and 40 minutes. The Skylab crew obviously still in good humor and good spirits reported to the ground they will set their alarm clocks to wake up Monday morning at 6:00 a.m. Houston time. Sunday, the 10th day of America's first manned orbiting scientific laboratory has been described as another good day of Earth and space research. Approximately 7 hours of manned observations of the Sun were conducted by the crew of Skylab today. Crew members, Commander Pete Conrad and Science Pilot Medical Doctor, Joseph Kerwin, and Pilot Paul Weitz accomplished all the work detailed them by the flight controllers at the Houston Mission Control Center. The crew's 16 hour day began at 6:00 a.m. Houston time and is scheduled to end at 10:00 p.m. this evening, when the crew retires to their individual sleep compartments in the orbital workshop. Science Pilot Kerwin will don the sleep monitoring cap tonight, the M133 medical experiment is scheduled to be worn by Dr. Kerwin at least 15 times throughout this mission. Systems wise temperatures continued to decrease in the Skylab space station. Current temperature in the workshop is 77.5 degrees Fahrenheit. The vehicle still is furnishing limited power and as the 16 remaining CBRMs, charger battery regulator modules, through which energy from the ATM solar panels are passed into batteries aboard the spaceship. The ATM solar array contains 164,160 cells and the 4 windmill type panels on the ATM. Monday's schedule includes the mission's 4th Earth resources pass. This pass is along a track beginning outside Rapid City, South Dakota and ending the Virgin Islands and Puerto Rico. All EREP sensors with the exception of the Earth terrain camera S190B B will be utilized in this pass. A block of time has been worked into tomorrow's flight plan to provide the crew additional time to adjust align the S192 multispectral scanner. The crew has had difficulty in aligning this instrument during today's EREP pass. The multispectral scanner is an optical mechanical scanner which

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registers spectral signatures in 13 spectral bands in the visable and infrared of ground targets in agriculture, forestry, geology, hydrology, and oceanography. Dr. Story Musgrave, member of the backup crew of Skylab II, advised Commander Conrad tonight that procedures of an EVA for an attempt to free the orbital workshop solar wing panel number 1, will be passed up by teleprinter tomorrow. The following day on Tuesday, the crew will discuss these procedures with Mission Control. These discussions are scheduled to be covered by TV from the spacecraft. EVA procedures were worked out today by Commander Schweickart, by backup Commander Schweickart and Ed Gibson in a , at the neutral buoyancy simulator at the Marshall Space Flight Center. They were trying all three methods of loosening the aluminum strap which is holding down the solar array beam on the orbital workshop. For Houston area residents who would like to see the Skylab workshop early in the morning. There is another pass running southwest to northeast starting at 5:27, 5:27 central daylight time. This pass from the southwest to the northeast will be visable for approximately 6 minutes and 41 seconds at an elavation of 55 degrees. With loss of signal at the Ascension Island tracking station. Next pass is scheduled for Guam in 28 minutes. At this time the crew should be asleep. At Mission Control Center Greenwich mean time 2 hours 45 minutes, this is Skylab Control.

END OF TAPE

SL-1I MC-496/1
Time: 22:12 CDT, 11:03:12 GMT
6/3/73

PAO This is Skylab Control, Greenwich mean time three hours 12 minutes as the Skylab space station with the three astronauts aboard approaches the Guam tracking station. If all is well, the crew should already be bedded down for the evening. We've leave the line up in the event there is air-to-ground with Cap Com, Dr. Carl Henize.

PAO This is Skylab Control, Greenwich mean time three hours 23 minutes. There was no conversation betweer the Skylab space station and Mission Control Center and on the just completed pass over the Guam tracking station. Dr. Charles Rosa, Skylab Flight Surgeon reported, following a brief conversation with the crew on the Ascension pass, that the crew said that Saturday night they had their best night's sleep since their launch on May 25. Commander Conrad reported that the crew averaged between 6-1/2 to 7 hours of solid sleep. Dr. Rosa quoted the crew as reporting they are in good spirits and are in excellent condition. This is Skylab Control closing down the Public Affairs console for Sunday evening. Next report at 6:00 a.m. central daylight time, Monday. This is Skylab Control three hours 24 minutes.

END OF TAPE